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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Je-Hak Woo

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EXAMINER

DADA, BEEMNET W

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,254	Applicant(s) WOO ET AL.	
	Examiner BEEMNET W. DADA	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 12, 13, 15, 16, 18-22 and 30 is/are rejected.
- 7) ☒ Claim(s) 6, 9-11, 14, 17 and 23-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/12/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-30 are presented for examination.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on May 12, 2005 has been considered. The submission is in compliance with the provisions of 37 CFR 1.97. Form PTO-1449 is signed and attached hereto.

Oath/Declaration

The oath filed June 08, 2004 complies with all the requirements set forth in MPEP 602 and therefore is accepted.

Drawings

The drawings filed on June 08, 2004 are accepted.

Specification

The specification filed June 08, 2004 is accepted.

Claim Objections

Claim 13 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend from any other multiple dependent claim. See MPEP § 608.01(n). Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 8, 12, 13, 20, 21, 22 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raley US 7,073,199 B1 in view of Peinado et al. US 6,816,596 B1 (hereinafter Peinado).

As per claim 1, Raley teaches multimedia contents protecting system for preventing multimedia contents, which are sent to an application program running on a client system, from leaking without permission through the use of an information providing system and the client system, the information providing system and the client system each having a Central Processing Unit (CPU), a volatile storage (memory), a non-volatile storage (hard disk) and an input/output device (keyboard, monitor, etc.), and being connected to each other through wired or wireless internal communication means or means for communicating with an external network, comprising:

the information providing system comprising,

encryption means (110) for encrypting original contents using one or more encryption keys and generating a content package (121) (i.e., encryption of content by distributor 120/220, figures 1&2, column 5, lines 54-61),

provision means (120) for holding the encrypted content package (121) and providing the encrypted content package (121) to users on line (storing encrypted content in distributor server 220, column 6, lines 61-63) and

a Digital Rights Management module for managing rights associated with particular document [column 7, lines 1-4], and

the client system comprising,

filtering means positioned between the application program and a device driver on a lower layer for hooking and converting a messages and a data packet, decrypting an encrypted data packet and sending the decrypted data packet to the application program (i.e., connection module for connecting, downloading and decrypting encrypted content/document from distribution server, and sending the decrypted content to the browser (application program), figure 2, column 7, lines 27-47 and column 8, line 63-column 9, line 35),

control means for starting and terminating the application program and controlling the filtering means (i.e., UI module, figure 2 and column 7, line 5-14, 27-42), and

an application program (144) for receiving the contents from the filtering means and playing the contents (i.e., browser, figure 2, column 6, 50-60 and column 9, lines 37-42).

Raley further teaches an information providing system further comprising: a Digital Rights Management module for managing rights associated with particular document [column 7, lines 1-4]. Raley is silent on the information providing system comprising: a Digital Rights Management (DRM) server (130) for managing generation of the encryption keys and performing various authentication operations. In the same filed of endeavor, Peinado teaches an information providing system including, a Digital Rights Management (DRM) server (130) for managing generation of the encryption keys and performing various authentication operations (i.e., license server, column 11, line 41-column 12, line 37). Both Raley and Peinado are

directed to a Digital Rights Managements system. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Peinado within the system of Raley in order to enhance the security of the system.

As per claims 21 and 30, Raley teaches a multimedia contents protecting method of preventing multimedia contents, which are sent to an application program running on a client system, from leaking without permission through the use of an information providing system and the client system, the information providing system and the client system each having a CPU, a volatile storage (memory), a non-volatile storage (hard disk) and an input/output device (keyboard, monitor, etc.), and being connected to each other through wired or wireless internal communication means or means for communicating with an external network, comprising:

the encrypting and uploading step of converting original contents (111) into an encrypted content package (121) using one or more encryption keys and uploading the encrypted content package (121) to a content server (122) (i.e., encryption of content by distributor 120/220, figures 1&2, column 5, lines 54-61 and storing the encrypted content in distribution server 220, column 6, lines 61-64)

the initiating and connecting step of connecting the client system to the content server (122) and initiating streaming or downloading service by selecting contents in a Web server (122b) or FTP server (i.e., connection module connecting and downloading encrypted content/document from distribution server, figure 2, column 7, lines 27-47 and column 8, line 63-column 9, line 35);

the decrypting and playing step of decrypting and playing content data through an application program (144) in response to a signal from a player during sending in the case of a streaming manner, or after downloading in the case of a downloading manner (i.e., connection

module decrypting encrypted content/document from distribution server, and sending the decrypted content to the browser (application program) and playing the content, figure 2, column 7, lines 27-47, column 8, line 63-column 9, line 35 and column 6, 50-60 and column 9, lines 37-42); and

the terminating step of terminating an operation of the application program (144) and a filtering operation and disconnecting the client system from the content server (122) in the case of a streaming manner when a DRM controller (141) detects a termination command of the application program (144) (i.e., UI module disabling, browser, connection module and/or operating system, figure 2 and column 7, line 5-14, 27-42).

Raley further teaches an information providing system further comprising: a Digital Rights Management module for managing rights associated with particular document [column 7, lines 1-4]. Raley is silent on encrypting content package using one or more encryption keys of a DRM server. In the same filed of endeavor, Peinado teaches an information providing system including, converting original contents (111) into an encrypted content package (121) using one or more encryption keys of a DRM server (i.e., license server, column 11, line 41-column 12, line 37). Both Raley and Peinado are directed to a Digital Rights Managements system. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Peinado within the system of Raley in order to enhance the security of the system.

As per claim 2, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Peinaod teaches the system including encrypting the content by using encryption keys generated by the DRM server [column 11, line 41-column 12, line 37].

As per claim 3, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Raley teaches the system wherein the provision means (120) is a content server (122) to which the content package (121) encrypted by the encryption means (110) is uploaded, and the content server (122) is a streaming server (122a) that provides actual streaming, a Web server (122b) that allows encrypted contents to be selected or provides download service, or a File Transfer Protocol (FTP) server [column 5, lines 54-61 and column 6, lines 61-64].

As per claims 4 and 22, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Peinado teaches the system wherein the DRM server (130) comprises: a DRM server DataBase (DB) (131) for storing various content information of the DRM server (130), the encryption keys, user information and application program information, a DRM server component (132) for managing generation of the encryption keys and issuance of licenses, a DRM license issuer (133) for issuing an encrypted license package in response to a request of the DRM controller (141), and a DRM administrator (134) for performing various setting and administration [column 11, line 41-column 12, line 37].

As per claim 5, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Raley teaches the system further comprising connecting means for enabling a connection to a billing server (150) or payment gateway server (160) to bill users for pay services [column 5, line 62-column 6, line 18].

As per claim 7, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Raley teaches the system wherein the control means is a DRM controller

that is automatically activated to initiate the application program when a user selects contents in a Web page in the case of a streaming manner or issues a command to open contents downloaded to a hard disk in the case of a downloading manner, accesses the DRM module, allows the contents and the user to be authenticated and receives the license package including one or more decryption keys, terminates the filtering operation depending on terminating of the application program, and controls the filtering means [and column 7, line 5-14, 27-42].

As per claim 8, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Raley teaches the system wherein the application program is not a dedicated viewer program having a function of decrypting the content package, but a general application program capable of playing contents of a content package form [column 6, 50-60 and column 9, lines 37-42].

As per claim 12, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Raley teaches the system wherein continuous content packets are sent and played in the case of a streaming manner, further comprising storage means for allowing content packets to be downloaded to the client system and to be stored therein [column 7, lines 27-47 and column 8, line 63-column 9, line 35].

As per claim 13, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Raley teaches the system wherein the multimedia contents are sent in one of a Video On Demand (VOD) streaming manner, a real-time live streaming manner, a complete

downloading manner and a Hyper Text Transfer Protocol (HTTP) manner, or off line in a storage medium, such as Compact Disk (CD) or Digital Versatile Disk (DVD) [column 7, lines 27-47 and column 8, line 63-column 9, line 35].

As per claim 20, the combination of Raley and Peinado teaches the system as indicated above. Furthermore, Raley teaches the system wherein the encrypted license package sent to the client system in response to a request of the user for authentication comprises: a decryption key for performing decryption, and usage rights including at least a count of use and a period of use of the contents and terminal restriction information [column 7, lines 27-47 and column 8, line 63-column 9, line 35].

Claims 15, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raley US 7,073,199 B1 in view of Peinado et al. US 6,816,596 B1 (hereinafter Peinado) and further in view of Van Rijnsoever US 2002/0090086 A1.

As per claims 15 and 16, the combination of Raley and Peinado teaches the claimed invention as indicated above. The combination of Raley and Peinado is silent on the system, wherein the encrypted content package comprises at least a data object portion that are encrypted contents and a header object portion that are non-encrypted meta data. However, partial encryption of data packets including encrypting content and leaving header data in clear format is old and well known in the art which has the advantage of secure and efficient processing of data. For example, Van Rinsoever teaches a system, wherein the encrypted content package comprises at least a data object portion that are encrypted contents and a header object portion that are non-encrypted meta data, and wherein a header of the encrypted

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content package is recorded in the header object of the content file [paragraphs 0019 and 0020]. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Van Rinsoever within the system of Raley and Peinado in order to efficiently and securely process data.

As per claim 18, the combination of Raley, Peinado and Van Rinsoever teaches the system as indicated above. Furthermore, Van Rinsoever further teaches the system, wherein the data object is the encrypted content is fully encrypted or partially encrypted in one or more predetermined frames [paragraphs 0019 and 0020].

As per claim 19, the combination of Raley, Peinado and Van Rinsoever teaches the system as indicated above. Furthermore, Raley teaches the system wherein the client system further comprises storage means for storing the encrypted content package [column 6, lines 61-63].

Allowable Subject Matter

Claims 6, 9-11, 14, 17, 23-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BEEMNET W. DADA whose telephone number is (571)272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Beemnet W Dada/

Examiner, Art Unit 2135

February 23, 2008